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*A note upon the disturbance of the sense of taste after the amputation of the tongue*, Frederick Peterson, M. D., Medical Record Vol. XXXVIII. p. 230.

There has always been great difficulty in tracing the course of the nerves of taste, and the distribution of the final taste filaments. It has been pretty well demonstrated that there are special areas of the tongue where certain tastes may be perceived and others that are susceptible to different tastes. The author has had an exceptional opportunity for making some experiments on the phenomena of taste, upon two patients whose tongues had been removed.

The first patient could, when liquids were given him to swallow, taste bitter, sweet and salt substances, but not acid substances. Special tests, made on definite localities, resulted in finding that bitterness was feebly perceived by the soft palate, strongly by the posterior wall of the pharynx, while sweetness was not perceived at all, except on the posterior wall of the pharynx. Saltness was not perceived either by the palate or the pharynx, but probably by the surface of the epiglottis. The galvanic current, when applied to the parts, produced no sensation of taste.

Another noticeable fact was that the sense of smell was entirely abolished after the removal of the tongue, so that the patient could distinguish no odor whatever even in such strong smelling substances as tar, iodiform or oil of wintergreen. In the case of the second patient, whose tongue had been removed, besides the inability to distinguish acids, sweets could not be at all recognized.

*The education of the sense of smell*, Schneider.—Medical News, Vol. XXXVIII. 452.

Comparatively little has been done in making use of the sense of smell in diagnosis, for the reason that so far no one has been able to classify or describe the different odors. The author looks forward to the day when it will be possible to accumulate and transmit experience in the matter of smell as we now do in reference to the other senses.

*Sur les minimums perceptibles de quelques odeurs*, M. Jacques Passy.—Comptes rendus, Vol. CXIV. 306.

The experiments made are for the purpose of finding out the smallest amount of any specified odor that is perceptible in a liter of air. A set of standard solutions is prepared, each containing one hundredth as much of the substance as the previous one in the series. Then one drop of the last dilution is introduced into the liter flask, the bottom of which has been previously warmed, to render evaporation complete. After waiting long enough to allow the odor to diffuse itself through the flask, the experimenter smells of its contents and if he cannot distinguish the odor, he repeats the experiment with the next stronger solution, till it is just possible to distinguish the odor. When greater accuracy is demanded, several intermediate solutions may be made up between the last two solutions tested. This method has been proven to possess several advantages, not the least of which is the fact that the observer can make the tests under normal conditions. The alcohol employed should be absolutely pure or an error may be introduced.

The following results show the minimum quantity that is perceptible in a liter of air; the results being expressed in thousandths of a milligram:—

Subjects.	Ether.	Orange.	Romarin.	Wintergreen.	Menth.	Vanillin.
No. 1 AE	27 0.5	0.05	0.05	0.005	0.0005	0.0006
No. 2 "	22 1.	0.05	0.55	0.005	0.01	0.0005
No. 3 "	32 1.	0.05	0.05	0.005	0.001	0.00007
No. "	42 1.	1 to 3	0.05	0.05	0.005	0.001
No. "	40 4.	1 to 3	0.8	0.4	0.01	0.005

The different stages of the experiment may be defined as 1, smelling nothing; 2d, smelling something that it is not possible to define, and 3d, ability to name the odor correctly. The figures found agree quite closely with those determined by Valentin many years ago.

*On the nerve supply of the sense of taste*, John Ferguson, M. A., M. D.—Medical News, 1890 Vol. LVII. 395.

It is quite generally admitted that the lingual branch of the fifth nerve and the gustatory branches of the glossopharyngeal carry the nerve fibres of taste to the tongue and palate. Are these the real supply to the parts of taste, or do they simply carry nerve fibres of taste to the tongue and palate? The author has had an excellent opportunity to observe a case in which there was a total loss of taste on the left side of the tongue, even to the tip. An autopsy was made which proved that the nerve supply of taste for the top and anterior part of the sides of the tongue comes from the fifth nerve and enter the superior maxillary division of the same nerve. The course then must be from the superior maxillary nerve into the spheno-palatine ganglion, thence by the vidian through the vidian canal to the ganglion-form enlargement of the facial, along this to the chorda tympani, through the chorda tympani into the lingual, a branch of the inferior maxillary of the fifth.

The conclusion is also reached that the vidian is not a motor root passing from the facial to the spheno-palatine ganglion, but a sensory nerve of the special sense of taste from the spheno-palatine ganglion of the second division of the fifth nerve to the seventh or facial; also nerve fibres of taste for the back of the tongue, fauces and soft palate cannot be carried by the chorda tympani. Proof is also adduced that the root of the glossopharyngeal nerve does not contain any fibres of the special sense of taste.

The route then for the sense of taste, so far as the glossopharyngeal is concerned, would be from the root of the fifth through its third division to the otic ganglion, from this by the small petrosal to the ganglion of the seventh, thence to the tympanic plexus, again by the tympanic branch to the petrous ganglion of the glossopharyngeal and by this latter to the back of the tongue, fauces and palate.

In a criticism on the above article in the Medical News, Vol. LVII. p. 464, by Dr. Chas. L. Dana, he asserts that while the researches noticed seem to prove that loss of taste is due to a disease of the vidian nerve, they do not prove so conclusively that the glossopharyngeal nerve has no gustatory functions.

*Sur la physiologie comparée de l'olfaction*, M. Raphael Dubois.—Comptes Rendus, Vol. CXI. 66.

The olfactory organs of mollusks have been studied by numerous experimenters, but so far little has been learned of the mechanism of the organs or of their mode of acting. It is a fact that many odors excite the organ of smell of *Helix Pomatia*, a mollusk well adapted to experiments on the special senses. The large tentacles are more sensitive than other parts, while that of the small tentacles, though considerable, is notably less than that of the large ones. As far as the rest of the external covering of the mollusk is concerned, it is excited by only a few odoriferous substances. There is greater sensibility at the extremity of the large tentacles, though it is apparent throughout the